Notes on the birds of Laquipampa Wildlife Refuge, Lambayeque, Peru

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SUMMARY.—Laquipampa was first designated a Reserved Zone, a temporary protected area category used by the Peruvian government until more complete studies permit a final designation, in 1982. The initial designation was based on the presence of the endemic and globally threatened White-winged Guan *Penelope albipennis*, but few other data on its other avifauna were available. We present the first comprehensive bird list (187 species) for this important reserve based on observations in 2001–10 and provide comments on several noteworthy records.

Laquipampa lies within the Incahuasi district of Ferreñafe province in Lambayeque. With the rediscovery of the presumed extinct White-winged Guan *Penelope albipennis* in Quebrada San Isidro in 1977 (see De Macedo 1979), further searches were initiated in Lambayeque and Piura. Ortiz (1980) found the species in two valleys at Laquipampa: Negrahuasi and Reloj. Based on this, a protected area was proposed and, in 1982, 11,346 ha were declared the Zona Reservada de Laquipampa to protect the guan (El Peruano 1982). However, apart from guan surveys (*cf.* Ortiz 1980, Ortiz & Díaz 1997), little was known of the area's avifauna and it received little government interest for almost two decades. In 1998 the Instituto Nacional de Recursos Naturales (INRENA, now the Servicio Nacional de Areas Naturales Protegidas, SERNANP) appointed the area's first refuge manager and in 2001 the first park ranger was assigned. In July 2006 the area was finally designated a Refugio de Vida Silvestre (El Peruano 2006) or wildlife refuge, covering 8,328 ha. Here we present the first comprehensive bird list for the conservation area, with notes on species of interest.

Study area and field work

Laquipampa Wildlife Refuge (LWR) is sited on a ridge on the north bank of the río La Leche (known as the Moyán above its confluence with the Sangana). Elevation in the refuge ranges from 200 m in the south-west (06°24′30″S, 79°33′45″W) to 2,600 m, the peak of 'La Punta' (06°15′55″S, 79°28′09″W), in the extreme north-east (Fig. 1).

According to CDC-UNALM (2006), the lower part of LWR belongs to the 'Piura and Tumbes Dry Forests' ecoregion and the upper part to the 'West Montane forests of the North Andes' ecoregion (Fig. 1). The dry forest is semi-deciduous and is found from 200 m to 1,300–1,400 m, and dominant species include *Loxopterygium huasango* (Anacardiaceae), *Bursera graveolens* (Burseraceae) and *Eriotheca ruizii* (Malvaceae). It has leaf cover in the wet season (December–May). Humidity and vegetation density increase with altitude. Montane forest is found in the upper LWR at 1,400–1,800 m, the vegetation does not shed its leaves in the dry season, and is considerably more humid than dry forest, reflected in the biomass of orchids, ferns and lichens. Another important floral community is *Sural* and scrub, which is dominated by *Suro* bamboo (*Chusquea* sp.: Poaceae) and many shrubs, with *Barnadesia* spp. (Asteraceae) dominant. This habitat occurs at 1,800–2,600 m and is characterised by low tree density, except on the sides of ravines. Agricultural areas also exist in the reserve including fields, mostly of corn, rice and sugarcane, near the ríos Moyán and La Leche, and formerly

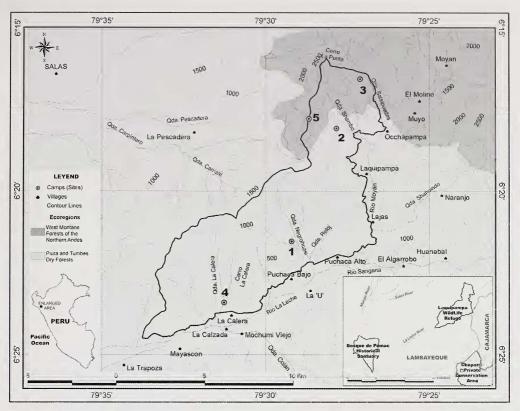


Figure 1. Map showing the location of the Laquipampa Wildlife Refuge in north-west Peru, its extent and the location of the five sites mentioned in the text. Site 1: Quebrada Negrahuasi, *c*.590 m. Site 2: Quebrada Shambo, *c*.1,360 m. Site 3: Corral Grande in Quebrada Salsipuedes, *c*.1,830 m. Site 4: lower reaches, *c*.350 m. Site 5: El Porongo, *c*.2,100 m.

used areas on level terrain dominated by *Acacia macracantha* (Fabaceae) at all elevations (established prior to the creation of the protected area).

On 21-31 August 2001, in the dry season, an expedition by ProAves Perú and Asociación Cracidae Perú produced the first bird list of 110 species (Flanagan & Angulo 2003). Two locations were visited: Quebrada Negrahuasi (22-24 August, 590 m, site 1) and Quebrada Shambo (25-29 August, c.1,000 m-1,400 m, site 2). In February 2006, a second expedition by Asociación Cracidae Perú explored the area in the wet season. Three camps were established, in Quebrada Negrahuasi (12-14 February, 590 m, site 1), Quebrada Shambo (15-19 February, c.1,360 m, site 2) and Corral Grande in Quebrada Salsipuedes (20-24 February, 1,830 m, site 3). A total of 130 species, 37 of them 'new' to the area (Angulo & Alemán de Lama 2006), was identified. Most records described here were made during these two visits. Other visits were in the dry season: on 11-13 July 2008 (at c.350 m, site 4) by FAP & JNMF, and 11–14 November 2010 (c.2,100 m, site 5, El Porongo) by FAP. An additional source is the records made during a two-year migrant bird project (September 2006-July 2008) conducted by ECOAN. Also included are records made around Moyán town, just outside LWR but with similar habitats and elevation, on the road to Incahuasi in February 2006. Finally, documented (with photographs) reports by local people are also included.

Results

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The Appendix presents an annotated species list for LWR totaling 187 species. Of these, seven are globally threatened—one Critically Endangered (CR) and six Vulnerable (VU) (BirdLife International 2012), 34 are restricted-range Tumbesian endemics and two are restricted-range Southern Central Andes endemics (Stattersfield *et al.* 1998). Sound-recordings have been archived at www.xeno-canto.org and are indicated by their catalogue number, e.g. XC66383. Noteworthy records not previously reported in the literature are detailed below.

COMB DUCK Sarkidiornis melanotos

Recorded twice in Laquipampa (5 June 2005 and 2 February 2006) at Puchaca (200–350 m), on both occasions singles in rice fields beside the río La Leche. The species is rather rare in north-west Peru, but was recorded during 1979–2010 at the Eten marshes near Chiclayo (Angulo *et al.* 2010). Approximately ten other records (usually of singles) in 2005–12 are available online (Cornell Laboratory of Ornithology & National Audubon Society 2011), from Rica Playa, in Tumbes, Laguna Ñapique (max. 25), Batanes and Puente Internacional, in Piura, and Olmos, Bosque de Pomac and Tinajones Reservoir (max. 55) in Lambayeque, the latter being the closest locality to Laquipampa. There is also a record from the río Tocto, Lambayeque (C. Hesse *in litt.* 2010).

BEARDED GUAN Penelope barbata VU

This restricted-range species was first reported at LWR in August 2001, in the Quebrada Shambo, where up to ten were seen at 1,300–1,700 m (Flanagan & Angulo 2002), and it was also heard in Quebrada Pescadera, a forested valley north of the refuge and above the village of Salas. In February 2006, *P. barbata* was found near the Shambo and Corral Grande camps, at 1,350–1,830 m. In November 2010 it was recorded to 2,150 m at El Porongo. On 17 February 2006, near Shambo camp at 1,400 m, a pair was found with a chick estimated on plumage to be *c.*2 weeks old (Delacour & Amadon 2004), suggesting that breeding here coincides with the wet season (December–February). The estimated population at LWR is 20–25 individuals based on available habitat.

WHITE-WINGED GUAN Penelope albipennis CR

First recorded at LWR in 1978 in Quebrada Negrahuasi, where 5–6 individuals were seen (Ortiz 1980). In 1987, 2–4 were recorded there (Ortiz & Díaz 1997). In 2000–01, FAP surveyed Quebrada Negrahuasi and two other sites—Lajas and Quebrada Shambo—on the advice of local people, finding six, 11 and two guans respectively (Angulo 2000, 2001). As of 2005, the refuge supported a min. population of 22 individuals (Angulo 2008). At LWR, White-winged Guan has been found at 600–1,400 m and also in the same quebrada, Shambo, as Bearded Guan, where they share a narrow altitudinal band at 1,300–1,400 m. The species is recorded regularly at Lajas, just below the village of Laquipampa (outside the refuge), and is also known to descend at dawn and dusk to a place *c*.500 m north of the village of Laquipampa, accessed via some fields. Moreover, ND noted that the species feeds in the village itself when a certain *Ficus* sp. (Moraceae) tree is fruiting. In 2007 eight captive-bred birds were reintroduced into Quebrada Negrahuasi (Angulo 2008) and had two chicks three months later. The estimated population in the refuge is 25–30 individuals.



Figure 2. Rufous-necked Wood Rail Aramides axillaris, Quebrada Shambo, Laquipampa Wildlife Refuge, Peru, 15 February 2007 (Oscar Rodríguez)

Figure 3. Captive Ruddy Quail-Dove *Geotrygon montana*, claimed to have been trapped locally, Laquipampa, Peru, 3 October 2005 (Napoleon Durand)

Figure 4. Mouse-coloured Tyrannulet *Phaeomyias murina tumbezana*, Laquipampa Wildlife Refuge, Peru, 22 February 2006 (Willem-Pier Vellinga)

Figure 5. Male Blue Seedeater Amaurospiza concolor, Corral Grande, Laquipampa Wildlife Refuge, Peru, 24 February 2006 (Willem-Pier Vellinga)

RUFOUS-NECKED WOOD RAIL Aramides axillaris

Photographed by O. Rodríguez in Quebrada Shambo at 1,270 m on 15 February 2007 (Fig. 2). *A. axillaris* was first recorded in Peru in Tumbes Reserved Zone (now Cerros de Amotape National Park) in 1986 (Parker *et al.* 1995). In Tumbes it has been reported from mangroves (Valqui & Walker 2002) and dry forest near El Caucho and Pozo del Pato in the north of Cerros de Amotape National Park (Walker 2002). Our LWR record extends the species' distribution *c.*280 km south. According to (unconfirmed) information from the park rangers, the species is present at LWR year-round, but is more active and vocal in January–April.

OCHRE-BELLIED DOVE Leptotila ochraceiventris VU

Heard at 550–2,100 m, with one poor sound-recording (XC38631) obtained at Quebrada Shambo in February 2006, and it was recorded again at El Porongo in November 2010. These records appear to be the southernmost published. Further north it has been reported at Palambla (Koepcke 1961).

[RUDDY QUAIL-DOVE Geotrygon montana

One kept as a 'pet' by a local person (Fig. 3), who claimed that the bird was captured in the valley. Its origin is of course unclear. In Amazonia (and possibly elsewhere), the species reportedly undertakes irruptive movements (Stouffer & Bierregaard 1993), so our record could be related to the closest known west-slope population (*c*.300 km to the north in Loja, Ecuador (Ridgely & Greenfield 2001), or perhaps to that in western Amazonia.]

KOEPCKE'S SCREECH OWL Megascops koepckeae

Sound-recorded near the Corral Grande camp in February 2006: during the night one was heard calling regularly and two birds, presumably male and female, were countersinging just before dawn (XC5526, 8649). The species was also heard at night at 2,150 m at El Porongo. This is the northernmost record of the species on the west slope of the Andes. Several apparently well-documented records from the nearest localities further south (Sinsicap and Bosque Cachil) are unpublished (but see Cornell Laboratory of Ornithology & National Audubon Society 2011).

OILBIRD Steatornis caripensis

One observed on a tree was photographed by JNMF in Quebrada Shambo at *c*.1,400 m in August 2001. Schulenberg *et al.* (2007) stated 'very rarely is reported from coast'. It has been recorded in Pimentel and Chiclayo (FAP unpubl.). The closest-known caves are apparently near San Andrés de Cutervo (SERNANP 2010) on the east slope of the Andes 77 km east of LWR.

LITTLE WOODSTAR Chaetocercus bombus VU

One photographed by A. Gonzales de la Cruz in Quebrada Shambo at 1,317 m, in May 2008, matches the species' presumed habitat preference for humid and semi-deciduous forests. Little Woodstar was formerly considered threatened based on the paucity of late-20th century records (implying a decrease in numbers) and the destruction of humid forests (Collar *et al.* 1992). However, recent years have witnessed increasing records from the northern part of the historical range in Peru, especially the Marañón basin in Cajamarca, Piura, Amazonas and Lambayeque (Cornell Laboratory of Ornithology & National Audubon Society 2011). However, little is known of its ecology (Collar *et al.* 1992) and it would be interesting to clarify the species' status in LWR.

RUFOUS-NECKED FOLIAGE-GLEANER Syndactyla ruficollis VU

In Peru known from the west slope of the northern Andes and from the Amotape range at 600–2,650 m (Schulenberg *et al.* 2007). After Cerros de Amotape National Park and El Angolo Hunting Reserve, LWR becomes the third protected area known to harbour the species in Peru and the only one in the main Andean chain. It was found at 1,360–2,150 m.

HENNA-HEADED FOLIAGE-GLEANER Hylocryptus erythrocephalus VU

In Peru protected areas known to support this species are Cerros de Amotape National Park and El Angolo Hunting Reserve, making LWR the third conservation unit in the country and the first in the main Andean chain. In LWR it was encountered at Negrahuasi and Shambo, between *c*.550 and 2,100 m.

RUSTY-BREASTED ANTPITTA Grallaricula ferrugineipectus leymebambae

The song of *G. ferrugineipectus* was recorded at 2,150 m at El Porongo (XC66383). In recent years the species has been encountered at various locations on the west slope in Peru and Ecuador. In Ecuador, where it was previously unknown, the species has been found north to dpto. Pichincha, and in Peru it was initially found on the west slope near Canchaque (Schulenberg 1981) and subsequently near Ayabaca by P. Coopmans (Vellinga *et al.* 2004). Ours is the southernmost record (*c*.100 km south of Canchaque) and the first for Lambayeque.

MOUSE-COLOURED TYRANNULET Phaeomyias murina

A small confusing flycatcher that was trapped and observed several times in Quebrada Shambo (*c*.1,400 m) and Corral Grande (*c*.1,800 m) was identified as *P. m. tumbezana*. Our photographs compare well with specimens of *P. m. tumbezana* (Fig. 4) and the illustration in Schulenberg *et al.* (2007). In less-than-ideal field conditions the conspicuous wingbars and eyestripe, and the dark crown could cause confusion with Grey-breasted Flycatcher *Lathrotriccus griseipectus*, rather than with *P. m. inflava*. On current knowledge, *P. m. inflava* occurs from the lowlands of southern Piura south, whereas *P. m tumbezana* occurs in the lowlands of northern Piura north to Ecuador, but occurs south at least to the Olmos–Bagua highway, e.g. at 1,800 m at Limon de Porculla (D. F. Lane *in litt.* 2009). *P. m inflava* has not yet been found in LWR but is known from Bosque de Pomac Historical Sanctuary, lower down in the floodplain of the río La Leche (06°29'S 79°46'W; 100–200 m). It is unclear if *P. m. inflava* and *P. m. tumbezana* co-occur in LWR. For now, there are no records at 500–1,400 m. Vocally, *P. m. inflava* and *P. m. tumbezana* are apparently similar (Schulenberg *et al.* 2007), although one vocalisation of *P. m. tumbezana* (XC38632) is perhaps unique, as we have not heard it from *P. m. inflava*.

GREY-BREASTED FLYCATCHER Lathotriccus griseipectus VU

Found at all three 2006 camps. It was sound-recorded in Quebrada Shambo (XC5626). LWR is south of the presumed range of the species, but it has recently been encountered even further south in the Zaña Valley as well (FAP unpubl.).

PIURA CHAT-TYRANT Ochthoeca piurae NT

This Peruvian endemic is known from Palambla and Porculla (Piura), Samne and Sinsicap (La Libertad), and Colcabamba, Wiñapatun, Noqno and San Damian (Ancash) (Collar *et al.* 1992). LWR is the first known location for Lambayeque and the first protected area known to harbour the species, when one was mist-netted near Corral Grande on 23 February 2006. At a similar elevation on the road to Incahuasi, just outside LWR (Moyán), the species was also observed and sound-recorded (XC5228) on 12 February 2006.

BLUE SEEDEATER Amaurospiza concolor

A male was trapped on 24 February 2006 near Corral Grande, at *c*.1,840 m in a mist-net within *Chusquea* sp. (Fig. 5). A presumed female and a male were observed by WPV at the same place one day earlier. LWR represents only the third-known location for the species in Peru; it was found in the Zaña Valley in 1996 (Salinas *et al.* 1998) and in a scrubby area west of Porculla pass at *c*.1,800 m (B. Walker *in litt.* 2009).

Discussion

The preliminary report on the 2001 expedition was instrumental in securing the present status of wildlife refuge, and the results presented here reinforce the importance of LWR for bird conservation in the Tumbesian Endemic Bird Area. The main importance of LWR remains the population of White-winged Guan; this is the only state-protected area known to date. Recently, two Regional Conservation Areas in which the species occurs have been created, in Piura and Lambayeque.

LWR also harbours a large number of Tumbesian endemics. Of the 55 range-restricted species of the Tumbesian region (*cf.* Stattersfield *et al.* 1998), 34 occur in LWR, making it meritorious of broader recognition as a key site in the protection of Tumbesian natural heritage. LWR is also crucial due to the altitudinal gradient of undisturbed forest protected therein, with species more associated with montane cloud forest present at higher altitudes, e.g. Bearded Guan. Such elevational transects of intact forest are increasingly scarce on the west slope of the northern Andes in Peru. Further field work could still discover other scarce species, e.g., Grey-headed Antbird *Myrmeciza griseiceps*, which is known both north and south of LWR in the main Andean chain. Such field work should focus on upper montane forests (2,000–2,600 m) and include seasons other than those during which we visited.

LWR lies immediately south of Comunidad Campesina Laquipampa and north of Salas. The economy of these communities mostly focuses on agriculture and cattle. Major threats to the refuge include its excessive use by cattle and land invasions by people.

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APPENDIX: birds of Laquipampa Wildlife Refuge

X = recorded in the season indicated. An empty box indicates a lack of records at the relevant season, and - = a degree of certainty that the species was not present. Evidence: C = mist-netted, photographed and released, P = photographed, R = sound-recorded, V = seen only, H = heard only, O = just outside LWR limits. Photographs include species photographed in the wild or birds photographed after being captured in the area by local people. Also shown are species indicative of Endemic Bird Areas; T = Tumbesian EBA, SCA = South Central Andes EBA, or country endemics (P) and threat status according to both IUCN (BirdLife International 2012) and the Peruvian government (El Peruano 2004).

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Least Bittern Black-crowned Night Heron Striated Heron Cattle Egret Great Egret Snowy Egret Little Blue Heron Turkey Vulture Black Vulture	King Vulture Andean Condor Pearl Kite Sharp-shinned Hawk Bicoloured Hawk Great Black Hawk Savanna Hawk Savanna Hawk Solitary Eagle Black-chested Buzzard-Eagle Harris's Hawk White-rumped Hawk Red-backed Hawk Red-backed Hawk Crested Caracara American Kestrel Peregrine Falcon Ruffusor	Peruvian Thick-knee Spotted Sandpiper Croaking Ground Dove Rock Pigeon Band-tailed Pigeon West Peruvian Dove Eared Dove White-tipped Dove Ochre-bellied Dove Scarlet-fronted Parakeet Red-masked Parakeet
Ixobrychus exilis Nycticorax nycticorax Butorides striata Bubulculus ibis Ardea alba Egretta thula Egretta caerulea Cathartes aura Coragyps atratus	Sarcoramphus papa Vultur gryphus Gampsonyx swainsonii Accpiter siriatus Accpiter bicolor Buteogallus meridionalis Harpyhaliaetus solitinga Buteo polyosoma Buteo leucorrhous Buteo polyosoma Buteo polyosoma Buteo sparverius Falco sparverius Falco sparverius Aramides axillaris Charadrius nooiferus	Burhinus superciliaris Actimus superciliaris Actimbina cruziana Columbina cruziana Patagioena fasciata Zenaida neloda Zenaida auriculata Leptotila overreauxi Leptotila ostreauxi Aratinga wasleri Aratinga erythrogenys

emic Remarks Peru			XC21774		XC5627, 8660	XC5526, 8649		XC29018	XC5609, 8644, 21592					XC29018, 8645					XC5180			XC5590										XC5608	XC5255-56			XC5237
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tion max.	1,800	700	1,800	800	2.100	2,150	700	1,400	1,800	800	1,400	1,360	1,400	1,800	550	1,360	1,400	1,830	2,100	2,100	1,800	2,150	2,100	2,150	2,100	1,800	800	1,830	1,300	1,050	590	1,830	1,800	700	700	590
Elevation min. ma	300	200	300	00C	590	1,830	009	1,400	300	300	1,400	590	300	1,360	550	590	1,400	1,830	590	550	1,400	550	1,830	2,100	1,500	1,800	590	1,800	1,300	300	1 590	300	550	300	300	590
	Pacific Parrotlet	Black-billed Cuckoo	Groove-billed Ani	Juiped Cuckoo Barn Owl	West Peruvian Screech Owl	Koepcke's Screech Owl	Spectacled Owl	Rufous-banded Owl	Peruvian Pygmy Owl	Burrowing Owl	Oilbird	Common Potoo	Lesser Nighthawk	Pauraque	Scrub Nightjar	Chestnut-collared Swift	White-collared Swift	Short-tailed Swift	White-tipped Swift	Grey-chinned Hermit	Sparkling Violetear	Speckled Hummingbird	Green-tailed Trainbearer		Rainbow Starfrontlet	Giant Hummingbird	Long-billed Starthroat	Purple-collared Woodstar	Little Woodstar	Short-tailed Woodstar	Tumbes / Spot-throated Hummingbird	Amazilia Hummingbird	Ecuadorian Trogon	Ringed Kingfisher	Green Kingfisher	Blue-crowned Motmot
	Forpus coelestis	Coccyzus erythropthalmus	Crotophaga sulcirostris	Tuto alba	Megascops roboratus	Megascops koepckeae	Pulsatrix perspicillata	Ciccaba albitarsis	Glaucidium peruanum	Athene cunicularia	Steatornis caripensis	Nyctibius griseus	Chordeiles acutipennis	Nyctidroma albicollis	Caprimulgus anthonyi	Streptoprocne rutila	Streptoprocne zonaris	Chaetura brachyura	Aeronautes montivagus	Phaethornis griseogularis	Colibri coruscans	Adelomyia melanogenys	Lesbia nuna	Aglaeactis cupripennis	Coeligena iris	Patagona gigas	Heliomaster longirostris	Myrtis fanny	Chaetocercus bombus	Myrmia micrura	Leucippus sp.	Amazilia amazilia	Trogon mesurus	Megaceryle torquata	Chloroceryle americana	Momotus momota

Remarks XC8633 XC5244	XC44728, 44730, 44732 XC5597 XC5177, 8750 XC8727 XC8699 XC5181 XC5181 XC5566, 21586 XC8747	many, e.g., XC8603 XC66383, 69835 XC41723, 44732 XC5595, 8579 XC5263 e.g. XC5179 XC58603 XC8603 XC38632 XC38632 XC5615, 16726	XC5614 XC5626 XC5584 XC8731 XC8731 XC5228
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Elevation in. max. 360 1,830 330 1,920 00 1,360 00 1,360 00 1,360 00 1,360 00 1,360	2,100 2,150 2,150 2,150 1,400 1,650 1,650	2,150 2,150 2,150 1,200 1,350 1,350 1,350 2,150 2,150 2,150	700 1,400 1,400 1,350 1,830 1,830 1,500 1,830 1,500 1,830 2,150 590
Elev min. 1,360 1,330 300 590 550	1,400 1,800 1,360 1,360 550 300 1,400 1,400 1,400	1,400 700 2,100 1,400 300 700 1,400 1,400 1,400 1,400	300 550 550 550 550 550 550 550 550 1,800 1,800 1,800
Ecuadorian Piculet Smoky-brown Woodpecker Scarlet-backed Woodpecker Golden-olice Woodpecker Lineated Woodpecker Guayaquil Woodpecker Pale-Jeoved Homero	Azara's Spinetail Line-cheeked Spinetail Rufous-necked Foliage-gleaner Henna-headed Foliage-gleaner Streak-headed Woodcreeper Chapman's Antshrike Collared Antshrike Scaled Antbitta	Chestnut-crowned Antpitta Scrub Antpitta Rusty-breasted Antpitta Blackish Tapaculo Elegant Crescentchest Pacific Elaenia Southern Beardless Tyrannulet Rufous-winged Tyrannulet Mouse-coloured Tyrannulet Tawny-crowned Pygmy Tyrant	Grey-and-white Lyrannulet Streak-necked Flycatcher Common Tody-Flycatcher Bran-coloured Flycatcher Grey-breasted Flycatcher Tropical Pewee Sanoke-coloured Pewee Sanoke-coloured Pewee Black Phoebe Vermilion Flycatcher Streak-throated Bush Tyrant Tumbes Tyrant Piura Chat-Tyrant
Picumnus sclateri Picoides fumigatus Verniliornis callonotus Colaptes rubiginosus Dryocopus lineatus Campephilus gayaquilensis Eurnarius leuromus	Synallaxia azarae Synalaxia azarae Cranioleuxia antisiensis Syndactyla ruficollis Hylocryptus erythrocephalus Lepidocolaptes souleyetti Thannophilus bernardi Grallaria guatimalensis	Grallaria rufficapilla Grallaria ruatkinsi Grallaricula ferrugineipectus Scytalopus latrans subcinereus Melanopareia elegans Myiopagis subplacens Camptostoma obsoletum Mecocerculus calopterus Phaeomyias murina tumbezana Euserthmus meloryphus	Pseudelleenta teucospodua Mionectes striaticollis Todirostrum cinereum Mytophobus fasciatus Lathotriccus griseipectus Contopus fumigatus Sayornis nigricans Pyrocephalus rubinus Mytohteretes striaticollis Tumbezia salvini Ochthoeca piurae

Snowy-throated Kingbird Snowy-throated Kingbird Tropical Kingbird Dusky-capped Flycatcher Black-and-white Becard Rufous-browed Peppershrike Nhite-tailed Jay Blue-and-white Swallow Southern Rough-winged Swallow 550 Crey-breasted Martin Barn Swallow Fasciated Wren Speckle-breasted Wren Speckle-breasted Wren Tropical Gnatcatcher 300
$\begin{array}{c} 1,700\\ 3,00\\ 1,400\\ 1,800\\ 1,800\\ 3,00\\ 3,00\\ 5,90\\ 1,800\\ 1,800\\ 1,800\\ 1,800\\ 1,800\\ 1,800\\ 1,800\\ 1,800\\ 1,360\\$

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Remarks			XC5184			XC21781			XC33256		XC5582				XC5169	XC5173			XC8580	XC5182		XC5174	XC5581, 5583		XC5178	XC8764	XC5187, 8648	XC16723	XC8735			XC21580	XC5600		XC5245
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Elevation	max.	1,500	2,150	1,050	2,100	1,400	2,100	300	300	1,830	1,830	700	590	1,500	2,150	1,830	2,150	1,650	1,830	1,830	1,830	1,830	1,830	2,100	1,700	2,100	2,150	1,800	1,360	1,150	300	1,500	2,100	1,800	2,100
Elev	min.	300	1,800	1,050	1,400	300	1,800	300	300	300	300	300	300	590	1,360	600	300	1,650	300	300	1,830	300	1,400	1,360	550	1,830	590	300	590	300	300	300	1,800	1,800	300
		Bananaquit	Black-cowled Saltator	Streaked Saltator	Rufous-collared Sparrow	Tumbes Sparrow	Ash-breasted Sierra Finch	Cinereous Finch	Collared Warbling Finch	Saffron Finch	Blue-black Grassquit	Parrot-billed Seedeater	Chestnut-throated Seedeater	Black-capped Sparrow	Grey-browed Brush Finch	White-winged Brush Finch	White-headed Brush Finch	Bay-crowned Brush Finch	Hepatic Tanager	Golden-bellied Grosbeak	Blue Seedeater	Tropical Parula	Masked Yellowthroat	Slate-throated Redstart	Grey-and-gold Warbler	Black-crested Warbler	Three-banded Warbler	White-edged Oriole	Yellow-tailed Oriole	Scrub Blackbird	Shiny Cowbird	Peruvian Meadowlark	Hooded Siskin	Lesser Goldfinch	Thick-billed Euphonia
		Coereba flaveloa	Saltator nigriceps	Saltator striatipectus	Zonotrichia capensis	Rhynchospiza stolzmanni	Phrygilus plebejus	Piezorhina cinerea	Poospiza hispaniolensis	Sicalis flaveola	Volatina jacarina	Sporophila peruviana	Sporophila telasco	Arremon abellei	Arremon assimilis	Atlapetes leucopterus	Atlapetes albiceps	Atlapetes seebohmi	Piranga flava	Pheucticus chrysogaster	Amaurospiza concolor	Parula pitiayumi	Geothlypis aequinoctialis	Myjoborus miniatus	Basileuterus fraseri	Basileuterus nigrocristatus	Basileuterus trifasciatus	Icterus graceannae	Icterus mesomelas	Dives warszewiczi	Molothrus bonariensis	Sturnella belicosa	Carduelis magellanica	Carduelis psaltria	Euphonia laniirostris

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